

Appln. No.: 10/551,245

Reply to Office action of September 27, 2007

IN THE DRAWINGS:

Attached are 2 sheets of replacement drawings which include Figures 1-6, these replace all previously submitted drawing sheets including Figures 1-6.

REMARKS

Reconsideration of this application as amended is respectfully requested.

Newly submitted drawing Figures 5 and 6 are filed herewith. All reference to the objected-to matter has been removed. However, Figure 5 remains labeled as "Prior Art." These amendments are believed to overcome the objections to the Specification.

Claims 8-13 have been cancelled, thereby obviating all rejections to those claims.

Newly presented claim 14 is believed to be in full compliance with 35 USC Section 112, first and second paragraphs, and further is believed to distinguish applicants invention patentably over the cited prior art.

Claim 14 recites a one-piece piston ring having a gap, an outer surface, an inner surface, an upper flank, and a lower flank. Claim 14 further recited the piston ring as including a bevel extending between said upper flank and the inner surface. The bevel is recited as having an angle measured from a plane perpendicular to the inner and outer surfaces which varies in a circumferential direction of the piston ring such that the angle is smaller in an area adjacent the gap as compared to an area diametrically opposed to the gap. Claim 14 further recites the bevel as having a width which also varies in the circumferential direction and which is wider in the area adjacent the gap as compared to the area diametrically opposed to the gap. Claim 14 further recites the lower flank as having a radial wall thickness which also varies in the circumferential direction such that the thickness is smaller in the area adjacent the gap as compared to the area diametrically opposed to the gap.

This combination of features is neither taught nor suggested by the prior art of record and thus is believed to render claim 14 allowable. These combined features have the advantage of controlling the behavior of the ring during operation, and in particular to maintain a constant twist angle in the circumferential direction extending from the ring gap to the ring back, which is diametrically opposed to the ring gap, as shown in Figure 6.

This is neither taught nor suggested in the prior art, including Kinsley alone or in view of SU'906 or Colvin.

It is believed that these amendments are proper in after-final form since they eliminate the rejections and place the application in condition for allowance with little or no further consideration needed on the part of the examiner.

It is believed that this application now is in condition for examination on the merits. Further and favorable action is respectfully requested.

The Patent Office is authorized to charge or refund any fee deficiency or excess to Deposit Account No. 04-1061.

Respectfully submitted,

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Date

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